MAIN FRAME PLUS★WARE™ NEWS
A PUBLICATION OF STSC, INC.
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Not Just Another Newsletter . . .

The PLUS★WARE newsletter is our way of saying that we value you and your business. This newsletter will bring you information on new and existing APL products and services, introduce you to the people at STSC who bring you the APL★PLUS System, and show you how some of our customers are using the APL★PLUS System to increase their productivity and meet their computing needs.

The premier issue contains a number of articles about new product releases. In May, the APL★PLUS Mainframe System, Version 5.0 will be delivered. The new release contains new features, enhancements to existing features, speedups, changes, corrections, and all new documentation attractively repackaged. See the article on page 3.

A new release of the DATAPORT Product is now available with an interface to TELL-A-GRAF, giving you high-quality and sophisticated graphics along with the data manipulation and interfacing features inherent in DATAPORT. See the article on page 2.

Other articles in this issue introduce you to SHAREFILE/AP, the newest APL product from STSC that gives you shared access, component-based files in the APL2 environment. Also included is an announcement about APL85, the International Conference On APL, which will be held in Seattle, Washington, May 12–16, 1985.

The direction of APL★PLUS System development is determined by the needs of our customers. So please take a few minutes to return the reader reply card attached to page 3. This reply card will be a regular feature of the newsletter. It will give you the opportunity to let us know what products, services, issues, and concerns are important to you, and, most importantly, it will give you a chance to let us know how we're doing at supplying the products, services, support, and assistance you need.

New Release of APL★PLUS® SYSTEM Provides many New Features and Enhancements

In May, STSC will release Version 5.0 of the APL★PLUS System Mainframe Software Product. Version 5.0 will provide a variety of new system functions, speedups to existing primitives, numerous miscellaneous improvements, and new documentation repackaged in an attractive smaller format.

New features and enhancements to the software product include:

- A new system function $\square MF$, which provides a line-by-line breakdown of CPU time used within a function. It reveals, for each line of a function, the time used directly on that line; the total time, including time within subfunctions; and the number of times the line was executed.
- Ambivalent functions. With Release 5.0, dyadic user-defined functions may now be called either dyadically or monadically. If called monadically, the left argument will be undefined ($0 = \square NC\ 'LEFTARG'$). A dyadic function that is not intended to be used monadically will now give a value error inside the function, rather than a syntax error where the function is called.
- An enhancement to the system variable $\square SA$, which can now be assigned the value $'OFF'$ to end the session by logging off when immediate execution mode is reached.
- A new formatting function called NF, which displays nested and heterogeneous objects in a more graphic format than the linear display currently used.
- Speedups to partitioned enclose. Common cases involving simple right arguments are up to several hundred times faster.
- Changes in the definition of depth and stranding to increase compatibility with IBM's APL2. To prevent users from having to modify existing applications, the new definitions are dependent on the setting of a new system variable, $\square CLEVEL$. Setting $\square CLEVEL$ to 1 selects the new definitions, while setting $\square CLEVEL$ to 0 retains the old definitions. In existing workspaces, $\square CLEVEL$ is automatically 0. But in a new clear workspace, $\square CLEVEL$ is 1. $\square CLEVEL$ may be localized and set within a function to insure proper operation in any workspace.
- Parenthesis-free character stranding. When $\square CLEVEL$ is 1, character strands may be formed without parentheses. For example $'ONE'\ 'TWO'\ 'THREE'$ is a 3-item vector of vectors when $\square CLEVEL$ is 1, but is an 11-element simple vector when $\square CLEVEL$ is 0.
- Depth has been changed to match the APL2 definition. When $\square CLEVEL$ is 1, the result of depth ($\equiv A$) is always a non-negative number. Simple scalars have depth 0, simple non-scalars have depth 1, and so on.

When Version 5.0 is issued in May, all customers who have up-to-date maintenance contracts will receive a new product tape that includes the new features and enhancements and a new workspace called NF, that includes the formatting function NF and documentation on its use.

Customers will also receive a copy of new documentation. All APL★PLUS System Mainframe Software documentation has been repackaged in a smaller size to make it easier to use at a terminal or microcomputer and more convenient to reference. The documentation contains details on the new system function $\square MF$, the enhancement to $\square SA$, and the new system function $\square CLEVEL$. It also contains both the new and the old definition for stranding, depth, and ambivalent function results.

The system administrator at all customer sites will receive a new version of the APL★PLUS System Administrator's Guide, which includes enhancements to SHAREFILE Backup Utilities. The enhancements include an interface to VM Tape, giving your site more flexibility with backup procedures that require tape handling.

For more information on the new features in Release 5.0, contact your STSC representative.

New DATAPORT Release Merges TELL-A-GRAF's High-Quality Graphics With DATAPORT's Powerful Analytical Features

STSC announced an industry breakthrough in March with the release of DATAPORT™, Version 5.5 and its new TELL-A-GRAF interface. This new release is the first to offer APL users high quality graphics, spreadsheet-like analytical functions, and extensive data interfacing all in one mainframe package.

According to John Fabian, DATAPORT Marketing manager, the new interface brings TELL-A-GRAF™ into DATAPORT's analytical environment and dramatically reduces the effort required to produce graphs. "As a result," Fabian said, "you can now use high-quality graphics to help make decisions, rather than just present results."

The DATAPORT Product itself combines the simplicity of spreadsheets with the strength of financial modeling languages to provide a powerful analytical environment. DATAPORT supports analysis of spreadsheet-like tables with a full range of mathematical, financial, and statistical functions. The product also supports multidimensional data structures, enabling you to work with more difficult problems, especially analyses involving complex comparisons, relationships, and trends.

DATAPORT's new interface extends TELL-A-GRAF's sophisticated graphic facilities to users who don't know the TELL-A-GRAF command language, while saving experienced TELL-A-GRAF users time and effort. The interface uses full-screen pick-and-point menus to select graph options for line, bar, pie, and text charts. DATAPORT then automatically generates TELL-A-GRAF command and data files to produce the desired graph. Typically, you would point to one or two options and DATAPORT would write out 10 or 20 TELL-A-GRAF commands as well as your graph data.

DATAPORT's other interface capabilities allow you, and now TELL-A-GRAF users, to access data from a variety of products, including FOCUS™, APL/DI, ADRS II, IFPS™, SAS™, LOTUS™ 1-2-3, VisiCalc™, MULTIPLAN™, or any microcomputer product that uses the DIF format. You can store data accessed through these interfaces or create and store your own files using DATAPORT's unique file folder concept. DATAPORT can also merge data stored in its folders or data accessed through its interfaces.

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DATAPORT provides an even more extensive interface to your APL applications. Functions that read and write DATAPORT file folders can be embeded inside your APL programs. DATAPORT itself can even be run from inside your applications, opening APL to TELL-A-GRAF and all the other DATAPORT interfaces.

Figures 1 through 3 demonstrate just how easy generating high-quality graphs can be with DATAPORT's new TELL-A-GRAF interface.

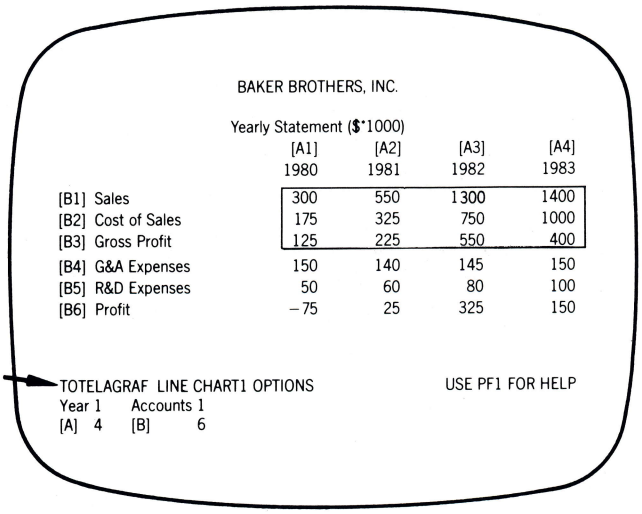

BAKER BROTHERS, INC.
Yearly Statement ($*1000)
[A1] 1980
[A2] 1981
[A3] 1982
[A4] 1983
[B1] Sales 300 550 1300 1400
[B2] Cost of Sales 175 325 750 1000
[B3] Gross Profit 125 225 550 400
[B4] G&A Expenses 150 140 145 150
[B5] R&D Expenses 50 60 80 100
[B6] Profit -75 25 325 150
TOTELAGRAF LINE CHART1 OPTIONS
USE PF1 FOR HELP
Year 1 Accounts 1
[A] 4 [B] 6

Figure 1

The DATAPORT command at the bottom of the screen in Figure 1 sends a file to TELL-A-GRAF specifying the highlighted data on the screen as a LINE chart called CHART1. The command also requests DATAPORT to display its full-screen line graph OPTIONS menu before generating the file.

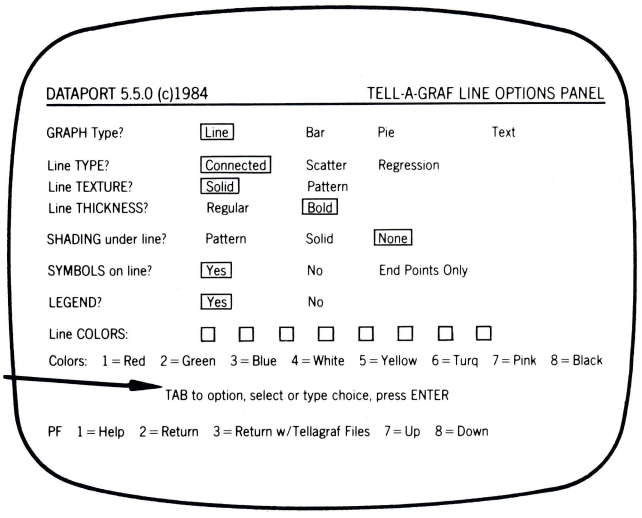

DATAPORT 5.5.0 (c)1984
TELL-A-GRAF LINE OPTIONS PANEL
GRAPH Type? Line Bar Pie Text
Line TYPE? Connected Scatter Regression
Line TEXTURE? Solid Pattern
Line THICKNESS? Regular Bold
SHADING under line? Pattern Solid None
SYMBOLS on line? Yes No End Points Only
LEGEND? Yes No
Line COLORS:
Colors: 1=Red 2=Green 3=Blue 4=White 5=Yellow 6=Turq 7=Pink 8=Black
TAB to option, select or type choice, press ENTER
PF 1=Help 2=Return 3=Return w/Tellagraf Files 7=Up 8=Down

Figure 2

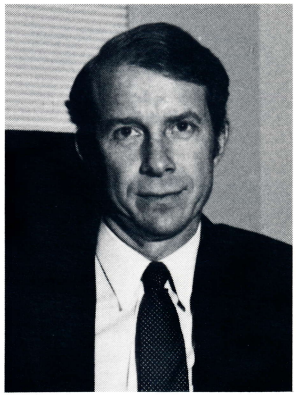
Figure 2 shows DATAPORT's full-screen options menu. Options are selected by using the tab keys. By paging down through additional menus, you can set chart annotations like titles, notes, and footnotes; X and Y axis specifications; as well as the size, character style, and resolution to be used on graphic charts.

continued on page 4

Meet the Team

The people at STSC who bring you the APL★PLUS System are dedicated to delivering the best APL products and services available on the market. In each issue of this newsletter we will introduce you to some of the people who direct the team, provide the products, and are available to assist you in your every need.

John W. Myrna is the Senior Vice President, APL Products and Services. John oversees the entire business at STSC responsible for providing APL software on micros, supermicros, and mainframe computers across a variety of operating systems. John has worked with APL since 1967 and with STSC since 1969, where he has played a major role in the progress, development, and direction of the APL★PLUS System. When asked about the direction of STSC's APL Products and Services Division, John indicated that, "To create a stronger partnership with our customers and to find ways to apply APL technology to meet their need is our primary goal."



Tom Skelton is the Vice President, APL★PLUS Mainframe Software. With over 10 years experience in the computer industry, Tom joined STSC in the Spring of 1983 to oversee sales and marketing functions for the APL★PLUS Mainframe Software Product. Tom's goal for STSC is "To fill the APL programmer's needs with productivity tools, so that they, as a group, can continue to overachieve in corporate America."

Ginny Marshalek, National Software Marketing Manager, joined STSC in July of 1984 with an impressive track record in sales management and extensive knowledge of the needs of the APL community. Ginny feels that "APL is the future for application development and STSC is committed not only to offering the best APL products on the market, but to making quality and service our top priorities."

STSC Develops Shared File System For the APL2 Environment

In 1969, STSC introduced the first shared access, component-based, APL file system. Since then, STSC's SHAREFILE™ System has become the industry standard for state-of-the-art file system design. Over the years, the popular and easy to use SHAREFILE System has been adopted to various machine architectures and environments. SHAREFILE is available with STSC's APL★PLUS System running on micros, supermicros, and mainframes in the MS DOS, UNIX®, and VS APL environments. And soon, many of the proven and tested features of SHAREFILE will also be available for IBM's APL2 environment.

This Spring, STSC will release SHAREFILE/AP, a secure, shared access, component-based APL file system for the APL2 environment. SHAREFILE/AP will use standard IBM interfaces to provide APL data manipulation and storage features without modifications to APL2.

SHAREFILE/AP combines many of the superior capabilities of the SHAREFILE System with a sophisticated auxiliary processor design, providing the features and benefits you have come to expect from any APL file system.

SHAREFILE/AP is designed to take advantage of many of the inherent properties of APL2. For example, the file system will handle *any* APL2 data object, including general or nested array features. Data is not translated or truncated in any way. SHAREFILE/AP also takes full advantage of APL2's event signalling and reporting mechanism. Error messages and completion codes fit right into the APL2 error message scheme. SHAREFILE/AP supports international language translations, which can provide you with error messages and command names in languages other than English.

A workspace of easy-to-use file functions is provided with SHAREFILE/AP. This workspace allows you to use simple names like FREAD, FAPPEND, and FDROP to access and update your data.

Since SHAREFILE/AP uses a mnemonic protocol to perform file system operations, users who wish to access the shared variable directly can use defined names rather than numeric codes. A single shared variable protocol design allows fast, efficient, and uninterruptable operations because only one assignment of the shared variable is required to perform an operation. You need not worry about spurious file damage due to the possibility of the resumption of incomplete file operations.

Additional features and benefits of SHAREFILE/AP that make it a valuable investment for the APL application developer can be found in STSC's SHAREFILE System for any environment:

- SHAREFILE/AP supports very large files and can handle vast quantities of data with no degredation in performance. Each individual file can contain over two gigabytes of data, and there is no practical limit on the number of files the system can contain.
- Files are easily shared with other users, even concurrently. SHAREFILE/AP permits many users to read and update the same file simultaneously without delays or damage to data.

continued on page 4

SHARED FILE SYSTEM
continued from page 3

- SHAREFILE/AP offers exceptional security and file control. The creator of a file has exclusive access by default; others can access the file only if the owner grants explicit permission. The owner has a fine degree of control over use of his files, letting, for example, others append data to a file but not read or modify the contents in any other way.

STSC is offering a special discount on advance orders of SHAREFILE/AP. This offer is only available for a limited time so contact an STSC representative soon for more information.

NEW DATAPORT RELEASE
continued from page 2

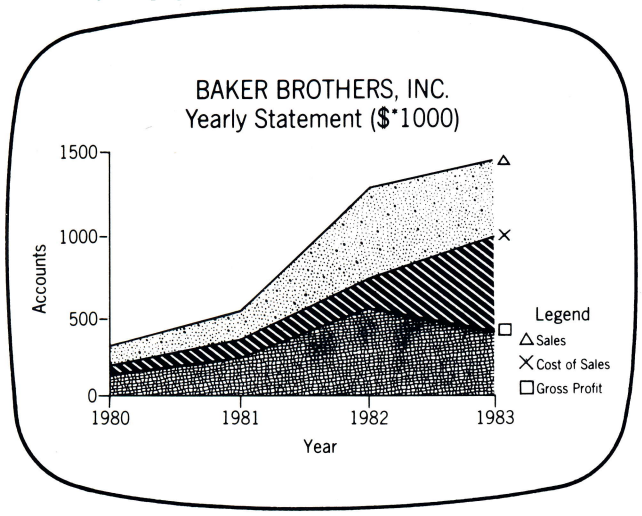


Figure 3

The DATAPORT command RUN TELAGRAF CHART1 produces the screen in Figure 3. The pattern shading and end point line symbols were selected using the menu in Figure 2. All other options—titles, axis labels, and legends—were generated by using the default options.

DATAPORT runs under VS APL or the APL★PLUS System in the VM/SP environment. The price of the base product is $14,000. The TELL-A-GRAF interface sells for $4,000. DATAPORT's other interfaces are individually priced from $2,000 to $6,000. Thirty-day trials are available. For a demonstration or more information, contact John Fabian at 301-984-5385.

International APL Conference Explores APL and the Future

An information-packed week of seminars, exhibits, and technical papers on APL is in store for participants at the next International APL Conference scheduled for May 12-16 in Seattle, Washington. APL85 is sponsored by the Association for Computing Machinery's (ACM) Special Interest Group on APL (SIGAPL), and the Puget Sound Chapter of ACM.

Anyone involved with APL—end users, application developers, implementors, information center managers, programmers, or educators— is urged to attend. The conference will feature tutorials on APL topics such as teaching APL and using GDDM. Panel session topics will include a review of micro-based APL products, graphics, corporate case studies using APL, developing APL interpreters, and information center products.

Rounding out the week's activities will be some APL competitive fun to win prizes such as subscriptions to trade publications, software systems, and a microcomputer.

STSC will be there demonstrating the APL★PLUS System. You can see it running on a variety of micro, supermicro, and mainframe computers, and in the PC DOS, UNIX, and VS APL environments. STSC will be giving away copies of Pocket APL, our new APL for the PCjr., and a copy of the APL★PLUS System for Personal Computers. Be sure to stop by and visit our booth and hospitality suite.

Make plans now to attend the conference. Don't miss your opportunity to participate in one of the most exciting APL conferences ever. For more information, contact Kevin R. Weaver, APL85 Program Chairman, at Parallax Systems, Inc., 60 West 9th Street, New York, NY 10011.

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